Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1-11. (Cancel)

12. (Currently Amended) A computerized method of operating a boiler system having a plurality of stages which may be active or inactive at a given time, the method comprising the steps of:

performing, at a first interval, a staging sequence to determine how many of the stages should be active; and

performing, at a second interval shorter than the first interval, a modulating sequence to modulate the active stages.

13. (Original) The method of claim 12 wherein the staging sequence includes a sub-method for making an inactive stage active and a sub-method for making an active stage inactive, wherein:

the sub-method for making an inactive stage active is disabled for a first time period after an inactive stage is made active;

the sub-method for making an active stage inactive is disabled for a second time period after an active stage is made inactive; and

the second time period is shorter than the first time period.

14. (Currently Amended) A controller for a boiler system, the controller configured to perform the sub-methods ~~steps~~ of claim 13.

15. (Original) The method of claim 12 wherein the boiler system includes a number of separate boilers, wherein each boiler represents a stage.

16. (Original) A controller for a boiler system, the controller configured to perform the steps of claim 12.

17. (Currently Amended) A computerized method of controlling a multi-stage boiler system having a number of stages that can be either active or inactive, the method comprising the steps of:

determining whether to make an inactive stage active; and

determining whether to make an active stage inactive; wherein:

a first delay is provided after making an inactive stage active,

a second delay is provided after making an active stage inactive, and

the first delay is longer than the second delay.

18. (Currently Amended) A computerized method of staging and modulating a boiler system in response to a load comprising the steps of:

staging and modulating the system using a first control method that is adapted for achieving increased efficiency under a first set of conditions; and

staging and modulating the system using a second control method that is adapted to allow cycling of the stages under a second set of conditions.

19. (Original) The method of claim 18 wherein at least one of the second set of conditions is that the load exceeds a threshold.

20. (Original) The method of claim 18 wherein at least one of the second set of conditions is that the system has operated by staging and modulating using the first control method for a predetermined time period.

21. (Original) The method of claim 18 wherein the first set of conditions includes non-occurrence of all of the second set of conditions.

22. (Currently Amended) The method of claim 18 wherein at least one of the first control method [[or]] and the second control method includes:

performing, at a first interval, a staging sequence to determine how many of the stages should be active; and

performing, at a second interval shorter than the first interval, a modulating sequence to modulate the active stages.

23. (Currently Amended) The method of claim 18 wherein at least one of the first control method ~~and/or~~ and the second control method includes a sub-method for making an active stage inactive and a sub-method for making an inactive stage inactive, wherein:

the sub-method for making an inactive stage active is disabled for a first time period after an inactive stage is made active;

the sub-method for making an active stage inactive is disabled for a second time period after an active stage is made inactive; and

the second time period is shorter than the first time period.

24. (Currently Amended) A boiler system comprising:

a controller configured to perform the method of claim 18; and

a switch;

wherein the first set of conditions includes having the switch in a first configuration, and the second set of conditions includes having the switch in a second configuration, the switch adapted to allow a user to manually select one of the first configuration or the second configuration.

25. (Currently Amended) A computerized method of performing a staging sequence for a multi-stage boiler system in which at least one stage can be either active or inactive, the method comprising the steps of:

observing an error measured as a difference between a temperature and a setpoint;

observing a rate of change of the error; and

combining the error and the rate of change of error to determine whether:

an inactive stage should become active;

an active stage should become inactive; or

no change in the number of active stages is necessary.

26. (Original) A controller for a boiler system, the controller configured to perform the method of claim 25.

27. (Cancel)